

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

| APPLICATION NO. | FILING I | DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO |
|--|----------|------|----------------------|---------------------|-----------------|
| 10/005,797 11/02/2001 7590 04/01/2005 | | 2001 | Brian P. Micke | 3957-8-DIV | 1373 |
| | | | EXAM | INER | |
| Douglas W. Swartz SHERIDAN ROSS P.C. | | | PRICE, RICHAR | D THOMAS JR | |
| 1560 Broadway, Suite 1200 | | | | ART UNIT | PAPER NUMBER |
| Denver, CO 8 | | | 3643 | | |

DATE MAILED: 04/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| - 24 |
|------|
| ~ |
| v |
| |
| |

| . / | Application No. Applicant(s) | | | | |
|--|--|--|--------------------|--|--|
| | 10/005,797 | MICKE ET AL. | | | |
| Office Action Summary | Examiner | Art Unit | | | |
| | Thomas Price | 3643 | | | |
| The MAILING DATE of this communication app Period for Reply | ears on the cover sheet with the c | orrespondence ad | dress | | |
| A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply of the NO period for reply is specified above, the maximum statutory period was a reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | 6(a). In no event, however, may a reply be tim within the statutory minimum of thirty (30) days ill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE | nely filed s will be considered timely the mailing date of this co | , ommunication. | | |
| Status | | | | | |
| 1) Responsive to communication(s) filed on 12-23 | P-2004. | | | | |
| <u> </u> | action is non-final. | | | | |
| 3) Since this application is in condition for allowan | ce except for formal matters, pro | secution as to the | merits is | | |
| closed in accordance with the practice under E | x parte Quayle, 1935 C.D. 11, 45 | i3 O.G. 213. | | | |
| Disposition of Claims | | | | | |
| 4)⊠ Claim(s) <u>1-7 and 37-49</u> is/are pending in the ap | plication. | | | | |
| 4a) Of the above claim(s) is/are withdraw | n from consideration. | | | | |
| 5) Claim(s) is/are allowed. | | | | | |
| 6) Claim(s) is/are rejected. | | | | | |
| 7) Claim(s) <u>2,7,42 and 47</u> is/are objected to. | | | | | |
| 8) Claim(s) are subject to restriction and/or | election requirement. | | | | |
| Application Papers | | | | | |
| 9)☐ The specification is objected to by the Examiner | | | | | |
| 10) The drawing(s) filed on is/are: a) acce | epted or b) \square objected to by the E | Examiner. | | | |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). | | | | | |
| Replacement drawing sheet(s) including the correcti | | | • • | | |
| 11) The oath or declaration is objected to by the Exa | aminer. Note the attached Office | Action or form PT | O-152. | | |
| Priority under 35 U.S.C. § 119 | | | | | |
| 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). | | | | | |

| , | 1110 25 110 111 10 11 10 10 10 10 10 10 10 10 1 |
|---------|--|
| a)∐ All | b)☐ Some * c)☐ None of: |
| 1. | Certified copies of the priority documents have been received. |
| 2. | Certified copies of the priority documents have been received in Application No |
| 3. | Copies of the certified copies of the priority documents have been received in this National Stage |
| | application from the International Bureau (PCT Rule 17.2(a)). |

| Attachment(| s) |
|-------------|----|
| | |

| 1) X Notice of References Cited (PTO-892) | 4) Interview Summary (PTO-413) |
|--|--|
| 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date |
| 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) D Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date | 6) |

^{*} See the attached detailed Office action for a list of the certified copies not received.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 37-39 are rejected under 35 U.S.C. 102(b) as being anticipated by Hebert U.S. Patent 4,964,341.

Hebert teaches a projectile which is structurally similar to the Applicant's claimed system for launching a projectile. More specifically, the apparatus having a nose being one of substantially flat and concave, a body containing an explosive charge and a tail having a plurality of fins to control the trajectory of the projectile. The center of gravity of the projectile is located in the body and a center of pressure of the projectile is located in the tail. Regarding claims 37-39, the nose is substantially flat and has a diameter that is about equal to a maximum diameter of said projectile.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3-6 and 40, 41, 48 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hebert U.S. Patent 4,964,341.

Application/Control Number: 10/005,797

Art Unit: 3643

nion/Control Hamber. 10/000,75

Hebert does not discuss the specific tail length ratio or the gap distance between the body and the detonating device. However, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the tail length of Hebert depending on the desired flight performance and travel distance. In regards to claims 5, 6, 43 and 44, with regard to the gap distance between the body and the detonating device, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the gap distance of Hebert in order to allow proper placement of the detonating device in the field. Regarding claim 40, it would have been obvious been obvious to a person of ordinary skill in the art at the time the invention was made to modify the apparatus of Hebert with a tube means for launching, in that, providing a tube launch allows for a controlled release of the projectile. As for claims 43 and 44, to vary the outer diameter and the ration of the tail to the length of the projectile are considered to be obvious to a person of ordinary skill in the art at the time the invention was made because these changes are considered to be based more on the desired flight performance requirements needed. In regards to claims 48 and 49. the reference to Hebert teaches a nose means that is substantially flat and slightly concave.

Page 3

Allowable Subject Matter

Claims 2, 7, 42 and 47 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 3643

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas Price whose telephone number is 703-308-2694. The examiner can normally be reached on Monday through Friday from 8:30a.m. to 5:00p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Poon can be reached on 703-308-2574. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thomas Price

Primary Examiner GAU: 3643

rtp